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Attorney Docket No.: FUJH 13.010A

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Inventor : SHINICHIROU HARASAWA, et al.

Serial No. : 09/084,787

Filed : May 21, 1998

Title : **INPUT MONITORING SYSTEM FOR  
OPTICAL AMPLIFYING REPEATER**

Examiner : N. Moskowitz

Group Art Unit : 3662

Assistant Commissioner for Patents  
Washington, D.C. 20231

**DECLARATION UNDER 37 C.F.R. 1.132**

SIR:

I, Hiroyuki DEGUCHI, hereby declare as follows:

1. I received Bachelor of Engineering in Electrical Engineering from Nihon University in 1989.

2. I am presently employed at FUJITSU LIMITED as  
Senior Engineer.

3. A list of my publications is attached hereto as Exhibit A.

4. I have been involved in research in the field of Optical Communication  
for the past 12 years.

5. I have read the specification and claims of the present application, the Office  
Action mailed on June 23, 2000, and the references cited therein.

6. The placing of an optical filter upstream of an optical amplifier, as disclosed in  
Heidemann, (U.S. Patent No. 5,335,109), in Fig. 15 of the above-mentioned application  
would result in a filter being placed on the optical fiber transmission path 1 in Fig. 15.

7. There is no teaching in Heidemann to place the optical fiber between the coupler  
10 and photo diode 11 in Fig. 15, the coupler 10 being upstream of the optical fiber  
amplifier 2 in Fig. 15, as claimed in claims 15-19 of the above-mentioned application.

8. The only optical coupler disclosed, taught, or suggested anywhere in Heidemann  
is the pump coupler 5 which is downstream of the erbium-doped fiber 3.

9. Heidemann is directed towards greater control over the level of an electrical output signal produced by an optical to electrical transducer.
10. The use of optical filters in Heidemann upstream and downstream from the optical amplifier aid in achieving the greater control over electrical output since they absorb extraneous pump light from a pump source 4 that controls the gain of the erbium-doped optical fiber amplifier 3.
11. In contrast, the optical filter claimed in the above-mentioned application is not directed towards gaining greater control over the optical and hence electrical output, but rather the optical filter claimed in the above-mentioned application is directed towards ascertaining the level of the optical input.
12. Aida et al. is not directed towards determining the level of the optical input, as is the invention claimed herein.



I further declare that all statements made herein of my own knowledge are true and all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the above-referenced application or any patent issuing thereon.

June 5, 2001  
DATE

Hiroyuki Deguchi  
SIGNATURE

for Deguchi, H.



**Exhibit A**

**(1) Title:** 32 channel 5.3 Gbit/s transmission experiment over 9879 km using broadband EDFA's

**Author(s):** Shimojoh, N.; Naito, T.; Terahara, T.; Deguchi, H.; Tagawa, K.; Suyama, M.; Chikama, T.

**Author Affiliation:** Fujitsu Labs. Ltd., Kawasaki, Japan

**Journal:** Electronics Letters vol.33, no.10 p.877-9

**Publisher:** IEE,

**Publication Date:** 8 May 1997 **Country of Publication:** UK

**(2) Title:** A Study on Wide Band Optical Amplifier with Hight Concentration Aluminium Co-doped EDF Using Re-circulating Loop.

**Author(s):** Deguchi, H.; Harasawa, S.; Suyama, S.; Shimojo, N.; Naito, T.; Shukunen, N.

**Journal:** Proceedings of 1996 IEICE general conference 1 Vol. 1996, No. Sogo Pt 3 page. 621 1996